

Teaching Educators Agriculture and Conservation Holistically for Urban Society

An Activity of:
The Research and Scientific Exchanges Division
International Cooperation and Development Area

TEACH US Abstract

PTEACH US :Teaching Educators Agriculture and Conservation Holistically for Urban Society

PAn InternationalAgriculture Literacy and Outreach Program targeting traditionally under-represented populations to enhance and expand knowledge of agricultural science and research activities and opportunities in the U.S. and globally.

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Foreign Agriculture Service

International Cooperation and Development

P By coordinating, supporting, and delivering a diversified program of international research, cooperation and development activities, TEACH US contributes significantly to ICD's efforts to link the technical expertise of the U.S. agricultural community with developing nations and international trading partners.



Foreign Agriculture Service

International Cooperation and Development

- P Helps developing nations build capacity to strengthen sustainable agriculture and build more stable economies.
- P Educates and enthuses large numbers of foreign consumers about the U.S. agricultural system, U.S. agricultural products, and U.S. culture.



Objective

TEACH US aims to expose minority teachers working in urban settings to agricultural disciplines through international study tours focused upon diverse agricultural and natural resource management practices . Expected outcomes include:



Outcome 1

P Expanding awareness, knowledge, and skills in the field of agriculture within major urban school systems characterized by large minority populations.



Outcome 2

P Maintaining and enhancing demonstrated excellence in the education and production of future agriculture scientists by actively increasing the talent reflective of the nation's diversity.



Outcome 3

P Contributing positively to efforts to improve math and science competency among primary and secondary students within major urban school systems characterized by large minority populations.



Outcome 4

P Providing urban teachers and students with information and resources to pursue job opportunities and careers in the field of agriculture.



Outcome 5

PEnhancing awareness, knowledge, and practices in the field of natural resource conservation including pollution reduction, preventing the exhausting of resources, and shifting resource consumption to more sustainable patterns.



Outcome 6

P Promoting preparation and support for teachers in their efforts to interpret other countries and other cultures for their students, to infuse international elements across the curriculum, and encouraging student and teacher exchange.



Historical Background

The National Commission on Mathematics and Science Teaching for the 21st Century Chairman **John Glenn** declared recently that **mathematics and science will supply the core forms of knowledge that the next generation of innovators, producers, and workers will need if they are to solve unforeseen problems and dream the dreams that will define America's future.**



Historical Background Cont.

The White House articulated several goals in the policy document Science in the National Interest. Two of the major goals were:

- * The production of the finest scientists and engineers for the 21st century
- * Scientific literacy for all



Historical Background Cont.

- P To help achieve these goals, we must increase our commitment to maximize the Nation's pool of talented, well-educated, and highly trained scientists and engineers.
- P This entails maintaining and enhancing demonstrated excellence in the education and production of scientists by **actively increasing** the talent reflective of the Nation's diversity.



Project Explanation

- P The agricultural sciences are particularly vulnerable to under-representation of minorities.
- P Traditionally under-represented groups often have negative perceptions of agriculture and related disciplines
- P In urban environments, where minorities are often concentrated, agricultural science programs are rare.



Project Explanation Cont.

P Given the key roles teachers play in student's enrollment decisions, low minority enrollments in agriculture science programs are linked to limited teacher familiarity with agriculture.



Project Benefits

By exposing minority teachers in urban settings to agricultural disciplines, TEACH US :

- P** Addresses minority under-representation in agriculture
- P** Lays the groundwork for increasing technically skilled minority agriculture professionals
- P** Provides additional context for improving math and science competency



Project Scope

Six Cities...Six Continents

TEACH US expands an already existing pilot project in DC and in Africa to include six urban school districts and six international TEACH US Institutes, one on every agriculturally utilized continent.



Project Scope Cont.

Six Cities...Six Continents

Each year, six teams of ten urban teachers from the urban school districts will travel to International TEACH US Institutes, one team to each Institute, as TEACH US Ambassadors. To be eligible, teachers must have completed the Agriculture in the Classroom Curriculum or a comparable agriculture program.



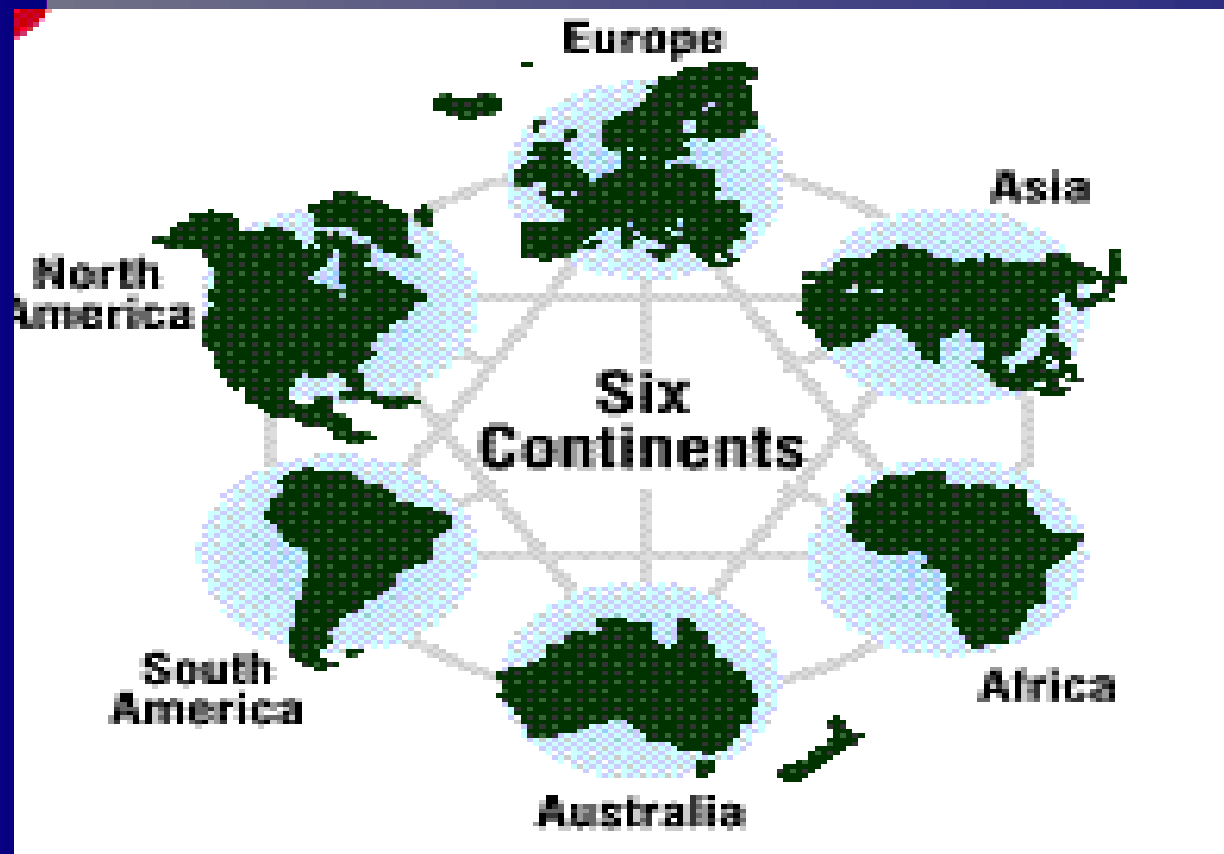


Project Scope Cont.

Six Cities...Six Continents

Each International TEACH US Institute will present urban teachers with hands-on, inquiry based learning opportunities, directed by leading agriculture and natural resources experts from both the US and the host countries.





Six Continents

International Institutes by Continent/Country

- P *Europe*: Ireland- Agriculture and Food Development Authority
- P *Asia*: China- Ministry of Agriculture/China Environmental Protection Foundation
- P *Africa*: South Africa- Agriculture Research Council/Southern Africa Wildlife College
- P *Australia*: Johnstone Center for Natural Resources and Society Research
- P *South America*:
- P *North America*: British Columbia, Canada- Ministry of Agriculture, Food, and Fisheries



Implementation

TEACH US will consist of four phases.

- P Phase one- Feasability Study and Pilot Program
- P Phase two- Evaluate and Assess Pilot Program/Legacy Program Design Refinement
- P Phase three- Full scale TEACH US Launch
- P Phase four- Project Evaluation and Continuance Plan



Implementation

Phase 1: Feasability Study and Pilot Program

- P Completed in 2000
- P Project Design
- P Liaise with DC Public Schools
- P Exploratory/Set-up trip to South Africa
- P Teacher recruitment
- P Conduct two expedition cycles (1 in 1999, 3 in 2000)
- P Monitoring and Evaluation by University of Pittsburgh



Implementation

Phase 2: Evaluation and Assessment of Pilot Program/Legacy Program Design Refinement

- P Begins in 2001
- P Project re-design and enhancement, including bolstering high-level science component and education component
- P Secure other agency support (Department of Ed) and additional funding
- P Identify and partner with other urban school systems
- P Continue conducting 3 expeditions for Summer 2001
- P Partner with the Agriculture in the Classroom organization and others for curriculum development



Implementation

Phase 3: Launch full scale Legacy Program, TEACH US

- P Official TEACH US launch during Global Science and Technology week, 2002
- P Conduct six expeditions annually
- P Convene annual TEACH US follow-up conferences and listening sessions



Implementation

Phase 4: Project Evaluation and Continuance

- P Cornell University conducts monitoring and Evaluation
- P Discuss possible follow-ons or spin-offs



Project Deliverables

USDA/FAS/ICD

- P An International Agriculture Literacy Program
- P Foreign teacher and student familiarity with and exposure to U.S. Agriculture products and systems
- P Linkages between U.S. agriculture scientists and educators and foreign agriculture scientists and educators



Project Deliverables

Students and Educators

- P Teachers with knowledge, experience, and enthusiasm for teaching agriculture
- P Classroom projects incorporating agricultural ideas
- P Internationalized science lesson plans
- P Students participating in and learning agriculture



Project Deliverables

P Regional seminars

P Graduate degrees, papers, articles

P Conferences



Project Schedule

TEACH US Time Line

Phase 1
1999-2000

Phase 2
2001

Phase 3
2002-2005

Phase 4
2006



Project Organization

Project Partners, US Government

- P US Department of Agriculture, Foreign Agriculture Service, International Cooperation and Development Area
- P US Department of Agriculture, Cooperative State Research, Education, and Extension Services, Science and Education Resources and Development
- P Smithsonian Institution, Office of International Relations
- P US Department of Education, International Services



Project Organization cont.

Project Partners, Research & Academic

P Cornell University

Department of Education

Cornell International Institute for Food,
Agriculture, and Development

P Tuskegee University, International Programs



Project Organization cont.

International Partners

- P Africa-** Southern Africa Wildlife College, South African Agricultural Research Council
- P Asia-** China Ministry of Agriculture, China Environmental Protection Foundation, Chinese academy of Sciences
- P Australia-** the Johnstone Research Center in Natural Resources and Society
- P Europe-** Irish Department of Agriculture, food, and Rural Development, TEAGASC
- P Latin America-** CATIE
- P North America-** British Columbia Fisheries, Ministry of Environment, Lands and Parks



USDA/FAS/ICD Qualifications

P International Cooperation and Development (ICD) promotes development of trade, facilitates international agribusiness relationships, and fosters world food security. ICD coordinates development projects and scientific exchanges, and promotes U.S. food products in world markets, through projects funded by the U.S. Agency for International Development (USAID), multilateral development banks (e.g., World Bank), the Emerging Markets Program, and others.



USDA/FAS/ICD Qualifications cont.

P ICD links the technical and scientific expertise of the U.S. agricultural community with developing nations to help increase income and food security. This collaborative effort helps participating emerging markets and transitional economy nations to achieve a sustainable agricultural environment. Nations moving from low- to middle-income status offer bright market prospects for U.S. agriculture, and investors have begun to explore their developing markets as markets for investments and expanded business ventures. It is in the best self interest of the United States to foster economic growth, strong diplomatic ties, and durable trade relationships with these nations.



RSED Qualifications

P The Research and Scientific Exchanges Division (RSED) facilitates cooperation between U.S. and foreign scientists and technical experts. RSED organizes itself and its programs around three strategic areas which reflect current and anticipated research priorities of USDA, FAS, the international research community, and relevant stakeholders. These strategic areas are: Food Security, including agricultural production, food safety and nutrition; Natural Resources and Environment; and Trade, Market Development, and Policy Linkages.



Summary

TEACH US...

- P Is an International Agriculture Literacy and Outreach Program targeting traditionally under-represented populations to enhance and expand knowledge of agricultural science and research activities and opportunities in the U.S. and globally.
- P Welcomes your continued support and involvement.



Thank you !



